

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A UseNet server system comprising:

a backend server ~~for storing articles~~;

a first communication link connected to ~~said~~ the backend server;

a cluster of servers~~[[,]]~~ connected to ~~said~~ the first communication link~~;~~;

wherein each server in ~~said~~ the cluster of servers is ~~adapted to be~~ in communication with the other servers in ~~said~~ the cluster of servers~~[[,]]~~; and

wherein at least one of ~~said~~ the servers in ~~said~~ the cluster of servers is ~~adapted to store~~ stores retrieved articles from ~~said~~ the backend server when ~~said~~ the articles are requested by a customer;

a second communication link~~;~~ ~~adapted to provide~~

wherein the second communication link provides article requests from at least a first customer to ~~said~~ the cluster of servers and ~~adapted to provide~~ provides at least one of ~~said~~ the retrieved articles to ~~said~~ the at least one customer; and

wherein said the UseNet-server system further adapted to retrieve retrieves stored articles from ~~said~~ the at least one server in ~~said~~ the cluster of servers when a first requested article has been previously requested by a second customer and is stored in ~~said~~ the at least one server in ~~said~~ the cluster of servers.

2. (CURRENTLY AMENDED) The UseNet-server system of claim 1, wherein a second server of ~~said~~ the cluster of servers is ~~adapted to retrieve~~ retrieves ~~said~~ the first requested article from ~~said~~ the at least one of ~~said~~ the servers in ~~said~~ the cluster of servers when ~~said~~ the customer

requested article has already been requested from ~~said~~ the backend servers due to a previous customer request for ~~said~~ the first requested article.

3. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein ~~said~~ the retrieved articles stored in ~~said~~ the at least one server in ~~said~~ the cluster of servers are each stored for a period of time until more storage space is required.

4. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, ~~where~~ wherein:
said the retrieved articles stored in ~~said~~ the at least one server in ~~said~~ the cluster of servers are stored in a memory device ~~that is~~ divided into smaller sized data storage units; and
~~wherein~~ each data storage unit is dynamically assigned a time interval such that only articles originally posted within ~~said~~ the dynamically assigned time interval are stored in each ~~said~~ the storage unit.

5. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein ~~said~~ the customer requests for articles can be fulfilled by retrieving ~~said~~ the requested articles from ~~said~~ the at least one server in ~~said~~ the cluster of servers for about 20 to 90 percent of ~~said~~ the customer requests for articles.

6. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein ~~said~~ the first communications link is a TCP/IP communication session.

7. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein ~~said~~ the communications link uses a Network News Transfer Protocol (NNTP).

8. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein each ~~said~~ the server in ~~said~~ the cluster of servers is adapted to be in communication with the other servers in ~~said~~ the cluster of servers via a network connection.

9. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 8, wherein ~~said~~ the network connection comprises at least one of an wired connection, a wireless connection, an optical connection, and a satellite connection or link.

10. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein the second communications link is a TCP/IP session.

11. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein the second communications link uses a Network News Transfer Protocol (NNTP).

12. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein ~~said~~ each server in ~~said~~ the cluster of servers is a commodity server.

13. (CURRENTLY AMENDED) The ~~UseNet~~ server system of claim 1, wherein ~~said~~ the backend server and ~~said~~ the cluster of servers are geographically distant from each other.

14. (CURRENTLY AMENDED) ~~An article or data~~ A storage and retrieval system comprising:

a plurality of servers forming a server cluster,

each ~~said~~ server of ~~said~~ the plurality of servers having storage space for storing articles and data;

a communication network allowing each one of ~~said~~ the plurality of servers to communicate with each other;

a backend server comprising storage space for storing articles,

~~said~~ the backend server being in communication with ~~said~~ the server cluster via a first communication link;

wherein a first server of ~~said~~ the plurality of servers ~~adapted to accept~~ accepts a request for a first article from a customer;

wherein ~~said~~ the first server, via ~~said~~ the communication network, queries ~~said~~ the plurality of servers for ~~said~~ the first article;

wherein, if ~~said~~ the first article is found in one of ~~said~~ the plurality of servers storage space, ~~said~~ the first article is provided to ~~said~~ the first server for delivery to ~~said~~ the customer; and

wherein, if ~~said~~ the first article is not found in one of ~~said~~ the plurality of server, ~~said~~ the first server requests ~~said~~ the first article from ~~said~~ the backend server.

15. (CURRENTLY AMENDED) The system of claim 14, wherein:

~~said the~~ backend server provides ~~said the~~ first article to ~~said the~~ first server for delivery to ~~said the~~ customer; and

~~wherein said the~~ first server stores ~~said the~~ first article in ~~said the~~ first server's storage space.

16. (CURRENTLY AMENDED) The system of claim 14, wherein ~~said the~~ storage space of each one of ~~said the~~ plurality of servers combined provides less article retention than ~~said the~~ storage space of ~~said the~~ backend server.

17. (CURRENTLY AMENDED) The system of claim 14, wherein when ~~said the~~ first server queries ~~said the~~ plurality of servers for ~~said the~~ first article, ~~said the~~ first article is found in one of ~~said the~~ plurality of servers at least 20 percent of the time.

18. (CURRENTLY AMENDED) The system of claim 14, wherein ~~said the~~ communication network comprises at least one of a wired connection, a wireless connection, an optical connection, and a satellite connection or link.

19. (CURRENTLY AMENDED) The system of claim 14, wherein ~~said the~~ first communication link is a TCP/IP session.

20. (CURRENTLY AMENDED) The system of claim 14, wherein ~~said~~ the backend server is geographically separated from ~~said~~ the plurality of servers.

21. (CURRENTLY AMENDED) The system of claim 14, wherein ~~each~~ ~~said~~ the memory space of each ~~said~~ the server of ~~said~~ the plurality of servers is logically divided in smaller sized storage units such that each ~~said~~ storage space is assigned a time interval for storing articles originally posted ~~on a UseNet~~ within ~~said~~ the time interval.

22. (CURRENTLY AMENDED) The system of claim 21, wherein ~~said~~ the backend server provides ~~said~~ the first article to ~~said~~ the first server for delivery to ~~said~~ the customer and ~~said~~ the first server stores ~~said~~ the first article in a first storage space that is assigned a time interval that includes a date of ~~said~~ the first article.

23. (CURRENTLY AMENDED) The system of claim 21, wherein ~~said~~ the backend server provides ~~said~~ the first article to ~~said~~ the first server for delivery to ~~said~~ the customer and wherein ~~said~~ the first server attempts to store ~~said~~ the first article in a first storage space such that, if there are only time interval storage spaces having time intervals newer than a date of ~~said~~ the first article, then ~~said~~ the first article is not stored in ~~said~~ the first server.

24. (CURRENTLY AMENDED) The system of claim 21, wherein ~~said~~ the backend server provides ~~said~~ the first article to ~~said~~ the first server for delivery to ~~said~~ the customer and wherein ~~said~~ the first server attempts to store ~~said~~ the first article in a first storage space such that, if there

are only time interval storage spaces having time intervals older than a date of ~~said~~ the first article, then storage space having the oldest time interval is reassigned a time interval that includes ~~said~~ the date of ~~said~~ the first article and ~~said~~ the first article is stored therein.

25. (CURRENTLY AMENDED) A method for providing news services comprising:

providing a local network cluster of news servers;

caching data and metadata related to news services with ~~said~~ the news servers in ~~said~~ the local network cluster;

receiving a request for news services ~~from~~ from a client associated with ~~said~~ the local network cluster;

determining whether ~~said~~ the requested news services are available from ~~said~~ the news servers in ~~said~~ the local network cluster;

if so, retrieving ~~said~~ the requested news services from ~~said~~ the news servers in ~~said~~ the local network cluster and providing ~~said~~ the requested news services to ~~said~~ the client directly from ~~said~~ the local network cluster; and

if not, creating a session to one of at least one backend server(s) to retrieve ~~said~~ the requested news services.

26. (CURRENTLY AMENDED) The method of claim 25, wherein ~~said~~ the requested news services are retrieved from ~~said~~ the one backend server in a compressed format.

27. (CURRENTLY AMENDED) The method of claim 25, further comprising: storing ~~said~~ the retrieved requested news service; providing ~~said~~ the retrieved requested news service to ~~said~~ the client; and storing ~~said~~ the retrieved requested news service in at least one of ~~said~~ the news servers.